

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of increasing the efficacy of agricultural chemicals selected from the group consisting of a pesticide, a fertilizer, and combinations thereof, said method comprising:

applying at least one of the agricultural chemical to a plant or plant seed under conditions effective for the agricultural chemical to perform its intended function functions and

applying at least one hypersensitive response elicitor protein or polypeptide to said plant or plant seed under conditions effective to increase the efficacy of the agricultural chemical, wherein said at least one hypersensitive response elicitor is heat stable, glycine rich, and contains substantially no cysteine.

2. (Original) The method according to claim 1, wherein said plant is treated during said applying.

3. (Original) The method according to claim 1, wherein said plant seed is treated during said applying, said method further comprising:

planting said treated plant seed in natural or artificial soil and
propagating a plant from said treated plant seed planted in said natural or artificial soil.

4. (Original) The method according to claim 1, wherein said plants or plant seeds are selected from the group consisting of canola, alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, cauliflower, broccoli, turnip, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, avocado, sugarcane, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

5. (Original) The method according to claim 1, wherein said applying the agricultural chemical is conducted simultaneously or independently of said applying the hypersensitive response elicitor protein or polypeptide.

6. (Currently Amended) The method according to claim 1, wherein the agricultural chemical is selected from the group consisting of pesticides[[],] and fertilizers, ~~and plant growth regulators.~~

7. (Original) The method according to claim 6, wherein the agricultural chemical is a pesticide selected from the group consisting of insecticides, fungicides, herbicides, acaricides, virucides, and nematicides.

8. (Previously Presented) The method according to claim 7, wherein the pesticide is an insecticide containing an active ingredient selected from the group consisting of carbamates, organochlorines, nicotinoids, phosphoramidothioates, organophosphates, and pyrethroids.

9-14 (Canceled).

15. (Original) The method according to claim 7, wherein the pesticide is a fungicide containing an active ingredient selected from the group consisting of aliphatic nitrogens, benzimidazoles, dicarboximides, dithiocarbamates, imidazoles, strobins, anilides, aromatics, sulfur derivatives, and copper derivatives.

16-23 (Canceled).

24. (Original) The method according to claim 7, wherein the pesticide is a herbicide containing an active ingredient with a site of action classification number selected from the group consisting of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 22, 28, and combinations thereof.

25-47 (Canceled).

48. (Original) The method according to claim 6, wherein the agricultural chemical is a fertilizer containing plant nutrients selected from the group consisting of sulfur, phosphorus, magnesium, calcium, potassium, nitrogen, molybdenum, copper, zinc, manganese, iron, boron, cobalt, chlorine, and combinations thereof.

49. (Original) The method according to claim 1, wherein the hypersensitive response elicitor or polypeptide is derived from a species of pathogens selected from the group consisting of *Erwinia*, *Pseudomonas*, and *Xanthomonas*.

50. (Original) The method according to claim 49, wherein the hypersensitive response elicitor protein or polypeptide is derived from an *Erwinia* species selected from the group consisting of *Erwinia amylovora*, *Erwinia carotovora*, *Erwinia chrysanthemi*, and *Erwinia stewartii*.

51. (Original) The method according to claim 49, wherein the hypersensitive response elicitor protein or polypeptide is derived from a *Pseudomonas* species selected from the group consisting of *Pseudomonas syringae* and *Pseudomonas solanacearum*.

52. (Original) The method according to claim 49, wherein the hypersensitive response elicitor or polypeptide is derived from *Xanthomonas campestris*.

53. (Currently Amended) A method of increasing the efficacy of agricultural chemicals comprising:

applying at least one agricultural chemical to a transgenic plant or transgenic seed transformed with a nucleic acid molecule which encodes a hypersensitive response elicitor protein or polypeptide, wherein the agricultural chemical is selected from the group consisting of pesticides, fertilizers, and combinations thereof and is applied under conditions effective for the agricultural chemical to perform its intended functions but with increased efficacy.

54-103 (Canceled)

104. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises nicotinoid.

105. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises strobin.

106. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate.

107. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate and strobin.

108. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate and nicotinoid.

109. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate and Dicamba.

110. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate, Dicamba, and strobini.

111. (Previously Presented) The method according to claim 1, wherein the at least one agricultural chemical comprises glyphosate, Dicamba, and nicotinoid.

112-119. (Canceled)

120. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 1 and is selected from the group consisting of sethoxydim and quizalofop-P.

121. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 2 and is selected from the group consisting of primisulfuron and imazamox.

122. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 3 and is selected from the group consisting of trifluralin and pendimethalin.

123. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 4 and is selected from the group consisting of 2,4-D and dicamba.

124. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 5 and is selected from the group consisting of atrazine and cyanazine.

125. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 6 and is bromoxynil.

126. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 7 and is diuron.

127. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 8 and is EPTC.

128. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 9 and is glyphosate.

129. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 10 and is glufosinate.

130. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 12 and is norflurazon.

131. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 13 and is clomazone.

132. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 14 and is fomesafen.

133. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 15 and is selected from the group consisting of alachlor and acetochlor.

134. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 22 and is diquat.

135. (New) The method according to claim 24, wherein the active ingredient has a site of action classification number 28 and is isoxaflutole.